

MODEL ROOF TRUSS DESIGN CRITERIA

In October 2002, building officials representing local enforcing agencies; the Wood Truss Council of Michigan; and structural engineering firms met to review attic live loading related to residential structures. Representatives of the Bureau of Construction Codes also participated in the discussion to provide an overview of the technical bulletin and to respond to questions posed in the meeting.

The 2000 Michigan Building Code (MBC), Table 1607.1, and the 2000 Michigan Residential Code (MRC), Table R301.4, state that an attic without storage shall be designed for a live load of 10 psf and an attic with storage shall be designed for a live load of 20 psf.

Both of the aforementioned Codes also require a flat or roof snow load based on the ground snow load map presented in both codes and modified in accordance with the ASCE-7. Although the MRC doesn't directly reference the ASCE-7, the November 2001 issue of Michigan Department of Consumer & Industry Services Bureau of Construction Codes' Publication Number 42 entitled *Roof Design* clarifies that ASCE-7 shall be used to determine the design roof snow load.

The committee reviewed the Michigan Department of Consumer & Industry Services Bureau of Construction Codes' Technical Bulletin Number 42 entitled *Roof Design*, and Michigan Department of Consumer & Industry Services Bureau of Construction Codes' Technical Bulletin Number 44 entitled *Residential Attic Loads on Roof Trusses* and concluded the following. First, the committee agreed that the use of the *Roof Loading Data Sheet* included within Publication Number 42 is in the best interest of the Builder, the Owner, the Municipality, the Roof Designer, and the Building Designer and will encourage its use. Second, the committee agreed with Publication Number 44 that the 20 psf attic storage load shall be applied only in areas intended for storage as clearly identified on the design documents and the *Roof Loading Data Sheet*. This is consistent with the language of the 2000 International Residential Code for One- and Two-Family Dwellings COMMENTARY. Last, the committee agreed that the minimum 10 psf attic live load shall be non-concurrent. It was agreed that the intent of the 10 psf attic live load is for construction loading and is not required to be applied concurrently with other transient live loads. This follows the requirement of the ANSI TPI-1-2002.

Questions may be directed to the Building Division at 517/241-9317.

This article will appear in the next edition of the Bureau of Construction Codes Bulletin